

Scrotal ulceration in HIV-positive patients

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Abstract

Four patients with scrotal ulceration were seen during a period of 9 months. All of them were HIV-positive homosexual men with coexisting skin conditions. Herpes simplex virus was not isolated from any of the ulcers, but a variety of bacteria was recovered. It is suggested that multiple factors peculiar to HIV-positive individuals may account for the development of such ulcers.

Scrotal ulceration is seen infrequently in genitourinary clinics. It is more commonly associated with the elderly immobile and incontinent population.¹ In this report we describe four patients who were seen over a period of nine months at the Jefferiss Wing and discuss possible aetiological factors.

Case reports

All four patients were homosexual men with a mean age at presentation of 31.6 years. They were known to be HIV-antibody positive for an average of 28.3 months but none had been sexually active nor travelled outside Western Europe in the six months preceding presentation. Three of the patients had negative serological tests for syphilis, the first case having a history and serology consistent with syphilis that had been treated previously (TPHA and FTA tests positive, VDRL test negative). Three of the four patients gave a history of recurrent perianal herpes simplex, but only the first case had an active lesion when first seen. Herpes simplex virus was not isolated from any of the scrotal ulcers. All the

patients except the fourth, had seborrhoeic dermatitis, and two of the four provided a history of folliculitis, although none had active disease when first seen. Three of the patients were significantly neutropenic, as shown in the table.

Case 1 A 36 year old man known to have been HIV-antibody positive for forty months was admitted to the hospital with his first episode of *Pneumocystis carinii* pneumonia. He had a past history of seborrhoeic dermatitis, perianal herpes and folliculitis. On examination there were patches of dry, scaling skin behind the left ear and over both arms. A tender ulcer, 2 cm in diameter, was present on the left side of the scrotum and was surrounded by erythema and oedema (fig). *Staphylococcus aureus*, β -haemolytic streptococci (Lancefield group G) and *Pseudomonas* species were isolated from scrotal swabs. The pneumonia resolved following treatment with nebulised pentamidine and erythromycin (for a super-added bacterial chest infection). Administration of magenta paint, clobetasol cream, and flucloxacillin resulted in gradual improvement in the scrotal lesion. Over the past year the patient has remained well dermatologically, but has suffered from a pulmonary infection with *Mycobacterium avium intracellulare*.

Case 2 A 25 year old man with an unexplained neutropenia developed oesophageal candidosis, autonomic neuropathy, bacterial chest infections, xeroderma and seborrhoeic dermatitis. Fourteen months after having been found to be HIV-antibody positive he was demented, wheelchair-bound, incontinent of urine and faeces, and had developed macerated inguinal regions with ulceration of both sides of the scrotum. Despite antibiotics and local antiseptics his condition continued to deteriorate and he died three months later.

Case 3 A 33 year old man with a history of ulcerative colitis, sacroileitis, seborrhoeic dermatitis and rupioid psoriasis, presented with a three-week

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Table Results of haematological investigations

Case no	Total white cells (10 ⁹ /l)	Neutrophils (10 ⁹ /l)	Lymphocytes (10 ⁹ /l)	Platelets (10 ⁹ /l)	Haemoglobin (g/dl)
1	2.5	1.5	0.6	122	11.2
2	0.4	—	—	54	5.4
3	8.4	4.2	3.2	440	11.6
4	1.8	1.3	0.3	176	10.1



Figure The healing phase of scrotal ulceration seen in the first patient.

history of a scaling erythematous rash in the groin and on the penis. The scrotum was excoriated, weeping and foul-smelling and *Staphylococcus aureus*, β -haemolytic streptococci (group G) and anaerobes were isolated from a scrotal swab. Haematological investigations were normal (table). There was a rapid response to intravenous penicillin and flucloxacillin with complete healing of the lesions. The patient remained well four months later.

Case 4 A 29 year old man who had been known to be HIV-antibody positive for 40 months and who had a history of recurrent perianal herpes and oesophageal candidosis was admitted to hospital for treatment of disseminated Kaposi's sarcoma (KS). Cutaneous involvement was minimal, but on admission he had signs of porta hepatis obstruction and liver failure, thought to be secondary to KS. Intravenous vincristine and bleomycin produced complete resolution of his oedema, but he developed a tender, foul-smelling, indurated ulcer, two centimetre in diameter on the undersurface of the left side of the scrotum, distant from any clinically apparent cutaneous KS. *Staphylococcus aureus* was isolated from a swab from the ulcer. Despite flucloxacillin, fluconazole, acyclovir and local treatment, there was no significant improvement in the ulcer and the patient's general condition continued to deteriorate until his death six weeks later.

Discussion

Skin ulcers may be caused by a variety of factors including trauma, infections and systemic disorders² and the groin region, in particular, is a recognised site for ulceration in elderly men.¹ We believe that this is the first series of scrotal ulcers reported in HIV-positive men. KS has been reported as presenting as scrotal ulceration,³ but this occurred in a 61 year old individual whose HIV status was unknown, and KS did not appear to be the cause of the ulceration in our patient.

There does not seem to be a single underlying cause for the ulcers seen in our patients. Various bacteria were isolated from the ulcers, but it is unclear whether these were causal or opportunistic secondary invaders. Neither biopsy of the lesions nor extended culture for mycobacterium species were performed.

It is possible that HIV-positive individuals are potentially at increased risk of scrotal ulceration by virtue of their unique combination of immunosuppression, abnormal skin physiology,⁴ immobility and incontinence (from either dementia or HIV-related neuropathy). We would suggest, therefore, that particular attention is given to the scrotal area in the management of these patients.

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